



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Biopesticides and Pollution Prevention Division (7511P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

93837-3

Date of Issuance:

10/21/2022

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Synthex 1-MCP Pro

Name and Address of Registrant (include ZIP Code):

SYNTHEX TECHNOLOGIES SP. Z O.O.  
Ul. Gagarina 7/134B  
87-100 Toruń, Poland

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to EPA.

Signature of Approving Official:

Andrew Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs

Date:

10/21/2022

3. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 93837-3.”
4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 05/17/2022

Any CSFs other than those listed above are superseded.

If you have any questions, please contact Susannah Powell of my team via email at [powell.susannah@epa.gov](mailto:powell.susannah@epa.gov).

Sincerely,



Andrew Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

## Synthex 1-MCP Pro

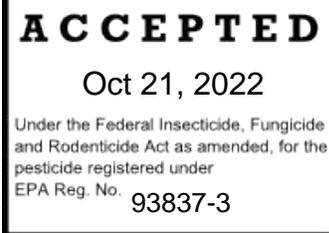
A unique postharvest tool for counteracting many of the undesirable effects of both internal and external sources of ethylene on harvested fruit and/or vegetables.

**Active Ingredient:**

1-Methylcyclopropene ..... 3.33%

**Other Ingredients:** ..... 96.67%

**Total:** ..... 100.00%



**SUBLABEL A** – COMMERCIAL LABEL FOR THE TREATMENT OF APPLES, ASPARAGUS, AVOCADOS, BANANA, BASIL, BLUEBERRIES, BROCOLLI, CHERRIES, FIGS, FLOWERS (CUT), GRAPES (TABLE), GREEN BEANS, KALE, KIWIFRUIT, LETTUCE, LYCHEE, MANGOES, MELONS (HONEYDEW, CANTALOUPE, YELLOW MELON, WATERMELON, PUMPKIN), ONIONS, PAPAYAS, PEACH, PEARS, PEPPERS, PLUMS, TOMATOES

**SUBLABEL B** – COMMERCIAL LABEL FOR THE TREATMENT OF APPLE STORAGE ROOMS

EPA Reg. No. 93837-

EPA Est. No.

Synthex Technologies Sp. z o.o.

ul. Gagarina 7/134B

87-100 Toruń, Poland

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

**SUBLABEL A – COMMERCIAL LABEL FOR THE TREATMENT OF APPLES, ASPARAGUS, AVOCADOS, BANANA, BASIL, BLUEBERRIES, BROCOLLI, CHERRIES, FIGS, FLOWERS (CUT), GRAPES (TABLE), GREEN BEANS, KALE, KIWIFRUIT, LETTUCE, LYCHEE, MANGOES, MELONS (HONEYDEW, CANTALOUPE, YELLOW MELON, WATERMELON, PUMPKIN), ONIONS, PAPAYAS, PEACH, PEARS, PEPPERS, PLUMS, TOMATOES**

## Synthex 1-MCP Pro

**Active Ingredient:**

1-Methylcyclopropene ..... 3.3%  
**Other Ingredients:** ..... 96.7%  
**Total:** ..... 100.0%

**NOTICE:** Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product in its generating system unopened and unused within thirty days of purchase to the place of purchase.

### KEEP OUT OF REACH OF CHILDREN CAUTION

[See [label booklet] [side panel] [back panel] for [complete] [additional] [First Aid], [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

<b>FIRST AID</b>	
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15- 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>POISON CONTROL CENTER 1-800-222-1222</b>	

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. For emergencies, call the poison control center 1-800-222-1222.

EPA REG. NO. 93837-

EPA EST. NO.

Lot No.

**Net Contents:** [Water-Soluble Pouch Sizes]

0.009 oz	(0.25 grams)	0.30 oz	(8.5 grams)	2.7 oz	(77.0 grams)
0.012 oz	(0.35 grams)	0.32 oz	(9.1 grams)	2.8 oz	(80 grams)
0.018 oz	(0.5 grams)	0.45 oz	(12.9 grams)	3.2 oz	(89.3 grams)
0.025 oz	(0.7 grams)	0.63 oz	(17.8 grams)	3.8 oz	(106.3 grams)
0.035 oz	(1.0 gram)	0.87 oz	(24.6 grams)	4.3 oz	(123.2 grams)
0.046 oz	(1.3 grams)	1.0 oz	(29.6 grams)	4.8 oz	(135.0 grams)
0.064 oz	(1.8 grams)	1.2 oz	(34.0 grams)	5.5 oz	(155.3 grams)
0.09 oz	(2.5 grams)	1.4 oz	(40.0 grams)	6.0 oz	(170.4 grams)
0.12 oz	(3.5 grams)	1.4 oz	(40.5 grams)	6.6 oz	(187.9 grams)
0.17 oz	(4.9 grams)	1.7 oz	(46.9 grams)	7.2 oz	(204.0 grams)
0.22 oz	(6.3 grams)	2.0 oz	(55.8 grams)	7.8 oz	(220.0 grams)
0.27 oz	(7.7 grams)	2.3 oz	(64.7 grams)	8.2 oz	(232.3 grams)
				8.6 oz	(244.6 grams)

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Avoid breathing vapor. Harmful if absorbed through skin. Causes slight eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators of this product must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear (such as goggles, safety glasses, or face shield)

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

Applicators and handlers must follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170).

Do not enter enclosed areas until the enclosed area has been vented unless wearing the appropriate PPE. Ventilation shall continue until after thirty (30) minutes of ventilation using fans or other mechanical ventilating systems.

PPE required for early entry into enclosed areas prior to venting is:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- A NIOSH-approved respirator with an organic vapor cartridge with a combination N, R or P filter NIOSH approval prefix TC-84A; or a NIOSH-approved gas mask with organic vapor canister NIOSH approval prefix TC-14G.

### **GENERAL INFORMATION**

Synthex 1-MCP Pro is a powder that, when mixed with water in a generating system, releases the volatile active ingredient, 1-methylcyclopropene (1-MCP).

Synthex 1-MCP Pro is a unique postharvest tool for counteracting many of the undesirable effects of both internal (produced within the fruit and/or vegetables) and external sources of ethylene on harvested fruit and/or vegetables. By counteracting ethylene, Synthex 1-MCP Pro provides many benefits to the fruit and/or vegetables during transport and storage including:

- Maintaining firmness
- Maintaining titratable acidity
- Preventing superficial scald and soft scald on pome fruit
- Reducing internal ethylene production
- Protection from external sources of ethylene
- Reducing fruit respiration
- Delaying ripening and senescence
- Reducing incidence of peel greasiness in apples
- Reducing incidence of core flush and mealiness in pome fruit
- Reducing chilling injury

Synthex 1-MCP Pro can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. Synthex 1-MCP Pro is effective under both cool (below 55°F, 13°C) and warm (above 55°F, 13°C) temperature conditions. To realize maximum benefit in controlling senescence, treat produce as soon as possible after harvest.

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

Harvested fruits and vegetables must be exposed to the volatile active ingredient of Synthex 1-MCP Pro in enclosed areas, such as storage rooms, greenhouses, coolers, shipping containers, enclosed truck trailers, or ambient temperature, refrigerated, or controlled atmosphere food storage facilities. This product is not intended for use outdoors or in other non-enclosed areas. These enclosed treatment areas must be gas-tight, as leakage will reduce Synthex 1-MCP Pro's effectiveness.

### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation. All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the user's possession during application.

### **Fruit and/or Vegetable Storage Conditions**

Synthex 1-MCP Pro is compatible with and complementary to fruit and/or vegetables stored under both controlled atmosphere and regular fruit storage conditions. Synthex 1-MCP Pro must be used in airtight treatment areas.

### **Timing of Harvest and Application**

Add Synthex 1-MCP Pro to the treatment area containing fruit and/or vegetables immediately after harvest, upon entering storage or in transit. For best results, do not use with fruit or vegetables previously treated with Ethephon. To realize maximum benefit for optimum quality, promptly pre-cool fruit and apply Synthex 1-MCP Pro in the treatment area as soon after harvest as possible and before the peak of respiration has occurred. Best results from Synthex 1-MCP Pro are obtained with fruit and/or vegetables at the optimum maturity level for long-term storage. Fruit and/or vegetables may benefit from repeat application. After application, store fruit and/or vegetables not for immediate sale according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere is recommended for fruit that is to be held longer than six months.

It must be emphasized that maintaining the cold chain (keeping the fruit and/or vegetables cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality fruit and/or vegetables. For optimum control of superficial scald on pome fruits, Synthex 1-MCP Pro must be applied within two weeks of harvest.

Apples: Apply Synthex 1-MCP Pro soon after harvest. Best results are obtained when fruit is at the optimum maturity level for long-term storage. For optimum quality, store apples that are to be held longer than six months in a controlled atmosphere.

Avocados: Apply Synthex 1-MCP Pro to the fruit soon after harvest at the physiological maturity stage or just prior to the "turning black" stage.

Broccoli, melons, mangoes, papayas, pears: Apply Synthex 1-MCP Pro as soon after harvest as possible.

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

Kiwifruit: Apply Synthex 1-MCP Pro either as soon after harvest as possible or after long-term storage and before the fruit are transported and distributed.

Tomatoes: Apply Synthex 1-MCP Pro between color stage mature green (color stage 1) and light red (color stage 5).

Plums: Apply Synthex 1-MCP Pro either as soon after harvest as possible or after long-term storage and before the fruit are transported and distributed.

Asparagus, basil, blueberries, cherries, figs, flowers (cut), grapes (table), green beans, kale, lettuce, lychee, onions, peppers: Apply Synthex 1-MCP Pro as soon after harvest as possible.

### **APPLICATION METHOD**

Prior to application, ensure that the treatment area can be properly and promptly sealed following application.

Synthex 1-MCP Pro is applied by the use of generators which are available in two sizes: large and small. See Table 1 to select the appropriate size generator and the amount of Synthex 1-MCP Pro for the fruit and/or vegetables to be treated in the treatment area. Fill the treatment area with fruit and/or vegetables. Place the appropriate generator on a stable surface in the treatment area in a position that would be within the flow of air from the internal refrigeration system.

Push the start button to activate the generator. With the generator running, add 2 gallons (8 liters) of water to the large generator or 0.85 quarts (0.8 liters) of water to the small generator. Use water at a temperature between 20° and 40° C (68 and 104° F). Remove the appropriate size Synthex 1-MCP Pro water-soluble pouches from the protective foil packets and drop the pouches into the water contained in the generator.

Immediately leave the storage area and seal the door in order to contain the 1-MCP vapor and ensure the maximum efficacy. The release of the 1-MCP to the area will start several minutes after the water-soluble pouch is added to the generator.

After the area is sealed, post a sign on all of the entrances to the treatment area. The sign should read “**CAUTION. Do not enter area. Synthex 1-MCP Pro treatment in progress.**” The doors to the storage area should remain sealed for the following periods of time to ensure effective Synthex 1-MCP Pro treatment.

- Apple, asparagus, basil, blueberries, cherries, figs, flowers (cut), grapes (table), green beans, kale, lettuce, lychee, onions, peach, pears, peppers, plum – 24 hours
- 
- Avocado, banana, broccoli, kiwifruit, melons, mango, papaya and tomato – 12 hours

Entrance to the room prior to these time periods will compromise the treatment. Circulate the air in the space by means of the internal air circulation system for AT LEAST one (1) hour. All vents to outside air should be closed, and any ethylene scrubbing devices or

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

ozone generating equipment should be turned off. At the end of the Synthex 1-MCP Pro treatment period, vent the treated room by opening the doors for a minimum of thirty minutes with continued full internal ventilation before allowing workers to enter. At the end of the room venting, remove the generator. The spent water contained in the generator can be disposed by pouring down a suitable drain. Treated fruit and/or vegetables not intended for immediate sale should be stored according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere conditions is recommended for fruit that is planned to be held longer than six months.

### Restrictions

- **Restricted Entry Period (REI):** 30 minutes after room has been vented.
- Do not smoke during the Synthex 1-MCP Pro application.

Table 1. Selection of Appropriate Size Generators and Synthex 1-MCP Pro Pouches

Selection based on volume of treatment area. Calculate the treatment area volume by measuring the length, width and height of the treatment area in feet. Multiply these three numbers together to obtain the treatment area volume in cubic feet. For example, if a room is 4 feet wide, 50 feet long and 5 feet high, the treatment area volume equals 1000 cubic feet. To determine the required amount of Synthex 1-MCP Pro powder, multiply the treatment volume by the rate shown in the table below for the selected crop and use the pouches that correspond to the calculated amount.

CROP	RATE* per 1000 ft <sup>3</sup>		Restriction
	Ounces	Grams	
Apple, Asparagus, Avocado, Basil, Blueberry, Broccoli, Cherry, Fig, Flowers (cut), Grape (Table), Green Bean, Kale, Lettuce, Lychee, Onion, Pepper	0.051 – 0.067	1.4 – 1.9	Do not apply more than 0.067 ounces Synthex 1-MCP Pro/1000 ft <sup>3</sup> (1.9 grams/1000 ft <sup>3</sup> )
Pear	0.02 – 0.04	0.58 – 1.2	
Kiwifruit, Mango, Melon, Papaya, Peach, Plum, Tomato	0.031 – 0.034	0.87 – 0.96	
Banana	0.017 – 0.020	0.48 – 0.58	

\* Use the large (2-gallon capacity) generator for amounts greater than 0.63 ounces (18 grams) of powder. It is best to use multiple generators for more than two pouches.

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#### **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty outer foil package in trash. Triple rinse the generator with water after use. Instructions for returning the used generators will be provided by Synthex Technologies Sp. z o.o.

#### **CONDITIONS OF SALE AND WARRANTY**

SYNTHEX TECHNOLOGIES SP. Z O.O. (“Synthex”) warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. SYNTHEX MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of SYNTHEX and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL SYNTHEX OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

**Synthex Technologies Sp. z o.o.**

**Gagarina 7/134B**

**87-100 Toruń**

**Poland**

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

**SUBLABEL B – COMMERCIAL LABEL FOR THE TREATMENT OF APPLE STORAGE ROOMS**

**Synthex 1-MCP Pro**

**Active Ingredient:**

1-Methylcyclopropene (1-MCP) ..... 3.33%

**Other Ingredients:** ..... 96.67%

**Total:** ..... 100.00%

**NOTICE:** Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product in its generating system unopened and unused within thirty days of purchase to the place of purchase.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

[See [label booklet] [side panel] [back panel] for [complete] [additional] [First Aid], [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

<b>FIRST AID</b>	
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15- 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>POISON CONTROL CENTER</b> <b>1-800-222-1222</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. For emergencies, call the poison control center 1-800-222-1222.	

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EPA REG. NO. 93837-

EPA EST. NO.

Lot No.

**Net Contents:**

3 water-soluble pouches containing 0.07 ounces (2 grams) each (0.21 ounces total; 6 grams total)

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Avoid breathing vapor. Harmful if absorbed through skin. Causes slight eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators of this product must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear (such as goggles, safety glasses, or face shield)

Applicators and handlers must follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170).

Do not enter enclosed areas until the enclosed area has been vented unless wearing the appropriate PPE. Ventilation shall continue until after thirty (30) minutes of ventilation using fans or other mechanical ventilating systems.

PPE required for early entry into enclosed areas prior to venting is:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- A NIOSH-approved respirator with an organic vapor cartridge with a combination N, R or P filter NIOSH approval prefix TC-84A; or a NIOSH-approved gas mask with organic vapor canister NIOSH approval prefix TC-14G.

**GENERAL INFORMATION**

Synthex 1-MCP Pro is a powder that, when mixed with water in a generating system, releases the volatile active ingredient, 1-methylcyclopropene (1-MCP).

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

Synthex 1-MCP Pro is a unique postharvest tool for counteracting many of the undesirable effects of both internal (produced within the apple) and external sources of ethylene on harvested apples. By counteracting ethylene, Synthex 1-MCP Pro provides many benefits to the fruit during transport and storage including:

- Maintaining firmness
- Maintaining titratable acidity
- Preventing superficial scald and soft scald on apples
- Reducing internal ethylene production
- Protection from external sources of ethylene
- Reducing apple respiration
- Delaying ripening and senescence
- Reducing incidence of peel greasiness in apples
- Reducing incidence of core flush and mealiness in apples
- Reducing chilling injury

Synthex 1-MCP Pro can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. Synthex 1-MCP Pro is effective under both cool (below 55°F, 13°C) and warm (above 55°F, 13°C) temperature conditions. To realize maximum benefit in controlling senescence, treat produce as soon as possible after harvest.

Harvested apples must be exposed to the volatile active ingredient of Synthex 1-MCP Pro in enclosed areas, such as storage rooms, greenhouses, coolers, shipping containers, enclosed truck trailers, or ambient temperature, refrigerated, or controlled atmosphere food storage facilities. This product is not intended for use outdoors or in other non-enclosed areas. These enclosed treatment areas must be gas-tight, as leakage will reduce Synthex 1-MCP Pro's effectiveness.

#### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation. All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the user's possession during application.

#### **Apple Storage Conditions**

Synthex 1-MCP Pro is compatible with and complementary to apples stored under both controlled atmosphere and regular apple storage conditions. Synthex 1-MCP Pro must be used in airtight treatment areas.

#### **Timing of Harvest and Application**

Add Synthex 1-MCP Pro to the treatment area containing apples immediately after harvest, upon entering storage or in transit. For best results, do not use with fruit previously treated with Ethephon. To realize maximum benefit for optimum quality, promptly pre-cool apples and apply Synthex 1-MCP Pro in the treatment area as soon after harvest as possible and before the peak of respiration has occurred. Best results from Synthex 1-MCP Pro are obtained with apples at the

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

optimum maturity level for long-term storage. Fruits may benefit from repeat application. After application, store apples not for immediate sale according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere is recommended for apples that are to be held longer than six months.

It must be emphasized that maintaining the cold chain (keeping the apples cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality apples. For optimum control of superficial scald on apples, Synthex 1-MCP Pro must be applied within two weeks of harvest.

### **APPLICATION METHOD**

Prior to application, ensure that the treatment area can be properly and promptly sealed following application.

Synthex 1-MCP Pro is applied by the use of a generator. See Table 1 below to select the appropriate number of Synthex 1-MCP Pro pouches and generators for apples and the size of the treatment area. Fill the treatment area with apples. Place the appropriate number of generators on a stable, level surface in the treatment area in a position that would be within the flow of air from the internal refrigeration system.

Remove the lid and seal from the generator. Open the bag that contains the Synthex 1-MCP Pro. Place the appropriate number of Synthex 1-MCP Pro pouches into the appropriate number of generators. Use one generator for 1-3 Synthex 1-MCP Pro pouches, two generators for 4-6 Synthex 1-MCP Pro pouches, three generators for 7-9 Synthex 1-MCP Pro pouches, etc. However, when many generators are used, only use a maximum of three Synthex 1-MCP Pro pouches per generator. Add ½ gallon (2 liters) of water at a temperature between 20° and 40° C (68° and 104° F) to each generator. Do not use cold water.

Immediately leave the storage area and seal the door in order to contain the 1-MCP vapor and ensure the maximum efficacy. The release of the 1-MCP to the area will start several minutes after the water is added to the generator. Reseal unused Synthex 1-MCP Pro in the bag and store in a cool dry place for future use.

After the area is sealed, post a sign on all of the entrances to the treatment area. The sign should read “**CAUTION. Do not enter area. Synthex 1-MCP Pro treatment in progress.**” The doors to the storage area should remain sealed for 24 hours to ensure effective Synthex 1-MCP Pro treatment. Entrance to the room prior to 24 hours will compromise the treatment. During the treatment, the internal refrigerated air circulation should be running to ensure good air circulation within the room. All vents to outside air should be closed, and any ethylene scrubbing devices or ozone generating equipment should be turned off. At the end of the Synthex 1-MCP Pro treatment period, vent the treated room by opening the doors for a minimum of thirty minutes with continued full internal ventilation before allowing workers to enter. At the end of the room venting, remove the generator(s). The spent water contained in the generator(s) can be disposed by pouring down a suitable drain. Treated apples not intended for immediate sale should be stored according to good standard commercial practices, in either refrigerated air or controlled

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

atmosphere. Storage in controlled atmosphere conditions is recommended for apples that are planned to be held longer than six months.

[MASTER LABEL] [Text denoted in brackets is optional text or note to EPA reviewer.]

### Restrictions

- **Restricted Entry Period (REI):** 30 minutes after room has been vented.
- Do not smoke during the Synthex 1-MCP Pro application.

**Table 1. Selection of Synthex 1-MCP Pro Pouches and Generators for Treatment of Apples**

Selection based on volume of treatment area. Calculate the treatment area volume by measuring the length, width and height of the treatment area in feet. Multiply these three numbers together to obtain the treatment area volume in cubic feet. For example, if a room is 4 feet wide, 50 feet long and 5 feet high, the treatment area volume equals 1000 cubic feet.

Treatment Area Size (empty volume) ft <sup>3</sup>	Number of Synthex 1-MCP Pro Pouches Required	Number of Generators Required**
1,000 – 1,500	1	1
2,000 – 2,900	2	1
3,000 – 4,000	3	1
4,000 – 5,000	4	2
5,000 – 6,000	5	2
6,000 – 7,000	6	2
7,000 – 8,000	7	3
8,000 – 9,000	8	3
9,000 – 10,000	9	3
10,000 – 11,000	10	4
11,000 – 12,000	11	4
12,000 – 13,000	12	4
13,000 – 14,000	13	5
14,000 – 15,000	14	5
15,000 – 16,000	15	5
16,000 – 17,000	16	6
17,000 – 18,000	17	6
18,000 – 19,000*	18	6

\*Continue to extrapolate for larger treatment areas, with each Synthex 1-MCP Pro pouch adding an additional

1000 ft<sup>3</sup> to the treatment area size.

\*\*Maximum of three Synthex 1-MCP Pro pouches per generator.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty outer foil package in trash. Triple rinse the generator with water after use. Instructions for returning the used generators will be provided by Synthex Technologies Sp. z o.o.

**CONDITIONS OF SALE AND WARRANTY**

SYNTHEX TECHNOLOGIES SP. Z O.O. (“Synthex”) warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. SYNTHEX MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of SYNTHEX and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL SYNTHEX OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

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